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Silverado Heap  
Leach

U401 12/17/87

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 9

In The Matter Of:

SILVERADO LEACH MILL FACILITY  
NEAR EUREKA, NEVADA

ORDER

88-03

GIOVANNI BELLINI, AMERICAN  
INTERNATIONAL RESOURCES INC., EINAR  
ERICKSON, LEO KNUDSON, JOHN  
AFFLECK, GARY N. SHEFFIELD,  
PAUL B. SHEFFIELD, MARK B. MORGAN,  
MICHAEL P. NAEVE, DENNIS  
BULLOCK, BLAINE HANCEY, PATRICK  
O'KEEFE, JAMES SCILLEY, JAMES  
SULLIVAN, LYNN H. ERICKSON,  
CHESTER W. ESKEY, GUSTAV E.  
ROSENHEIM, HAROLD E. REIFF TRUST,  
ALBERTA REIFF, J. F. CHADBAND,  
WARREN LONGHURST, AL STRATTON,  
FRANKLIN D. TRANSTRUM, CLAIR S.  
HAWKINS, GROVER HAWKINS, FREEMAN  
INSTITUTE, AND G & S CONSTRUCTION  
CO.,

Respondents

PROCEEDING UNDER SECTION 106(a)  
OF THE COMPREHENSIVE ENVIRONMENTAL  
RESPONSE, COMPENSATION AND LIABILITY  
ACT OF 1980 (42 U.S.C. 9606(a))

I. JURISDICTION

The following Order is issued on this date to GIOVANNI BELLINI,  
AMERICAN INTERNATIONAL RESOURCES, INC., EINAR ERICKSON,

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1 LEO KNUDSON, JOHN AFFLECK, GARY N. SHEFFIELD, PAUL B. SHEFFIELD,  
2 MARK B. MORGAN, MICHAEL P. NAEVE, DENNIS BULLOCK, BLAINE HANCY,  
3 PATRICK O'KEEFE, JAMES M. SCILLEY, JAMES SULLIVAN, LYNN ERICKSON,  
4 CHESTER W. ESKEY, GUSTAV E. ROSENHEIM, HAROLD E. REIFF TRUST,  
5 ALBERTA REIFF, J. F. CHADBAND, WARREN LONGHURST, AL STRATTON,  
6 FRANKLIN D. TRANSTRUM, CLAIR S. HAWKINS, GROVER HAWKINS, FREEMAN  
7 INSTITUTE, and G & S CONSTRUCTION CO.. ("Respondents") pursuant to  
8 Section 106(a) of the Comprehensive Environmental Response,  
9 Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. 9606(a)  
10 as amended by the Superfund Amendments and Reauthorization Act of  
11 1986 (SARA), Pub. L. No. 99-499, by authority delegated to the  
12 undersigned by the Administrator of the United States Environmental  
13 Protection Agency ("EPA"). Notice of the issuance of this Order  
14 has heretofore been given to the State of Nevada.

15       The Director, Toxics and Waste Management Division, EPA  
16 Region 9 has determined that there may be an imminent and  
17 substantial endangerment to the public health or welfare or the  
18 environment because of an actual or threatened release of hazardous  
19 substances from a former leach mill near Eureka, Nevada (the  
20 "facility").

21       This Order directs the aforementioned Respondents to undertake  
22 actions to protect the public and the environment from this  
23 endangerment.

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## II. FINDINGS OF FACT

### A. Background

1. The facility, known as the Silverado Leach Mill Facility, is an abandoned heap leach gold milling operation located on public lands in the Old Diamond Mining District, approximately 20 miles north of Eureka, Nevada. The facility is located at T. 18 N., R. 55 E., section 19.

2. The facility currently consists of a warehouse, mill tailings, and six ponds. One of the ponds has been tested by EPA's Technical Assistance Team contractor, Ecology and Environment, Inc. and has been shown to contain cyanide. The normal operation of a heap leach mill operation would involve the spraying of a cyanide solution over tailings piles to recover precious metals in the tailings. The cyanide-metal bearing solution would be channelled into the ponds, known as pregnant ponds. The liquid in the ponds would then be treated to recover the precious metals.

3. The warehouse currently contains 39 drums of chemicals as follows: five drums containing sodium cyanide, twenty-nine drums containing sodium sulfide, three drums of nitric acid, one drum of hydrochloric acid, and one drum containing flammable liquid. Some of the containers are banged up and rusting and there has been some leaking of the chemicals on the floor of the warehouse.

4. Respondent Einar Erickson first filed a mill site claim in section 19 in July, 1984. Other persons who filed claims in section 19 include Respondents Leo Knudson, John Affleck, Gary N. Sheffield, Mark B. Morgan, Paul B. Sheffield, Michael Naeve, J. F. Chadband, Warren Longhurst, Al Stratton, Franklin D. Transtrum,

1 Dennis Bullock, Blaine Hancey, Patrick O'Keefe, James M. Scilley,  
2 James Sullivan, Lynn Erickson, Chester W. Eskey, Gustav E.  
3 Rosenheim, Harold E. Reiff Trust, Alberta Reiff, Clair S. Hawkins,  
4 Grover Hawkins, and the Freeman Institute ("claimant Respondents").  
5 The claimant Respondents are the owners of the mill claims  
6 served and maintained by the facility.

7       5. Mr. Erickson operated the mill until 1984, at which time  
8 he transferred operation of the mill to American International  
9 Resources, Inc. Giovanni Bellini is the President of American  
10 International Resources, Inc.

11       6. G & S Construction Company, of which Mr. Bellini is a  
12 principal, transported the barrels of hazardous chemicals to  
13 the facility in 1985.

14       6. The Bureau of Land Management ("BLM"), which administers  
15 the lands on which the facility is located, inspected the facility  
16 in October, 1986, and found that the operator had allowed the  
17 facility to fall into a state of disrepair. Among other matters,  
18 the BLM found that the linings of the pregnant ponds at the  
19 facility had partially deteriorated. The BLM found corroding  
20 barrels labelled sodium cyanide resting unprotected on the  
21 ground. The leach pads were also in disrepair such that they were  
22 inadequate to meet the BLM's "zero discharge" standard.

23       7. On October 30, 1986, the BLM issued notices of noncom-  
24 pliance to Giovanni Bellini, Einar Erickson and claimant Respond-  
25 ents. On January 9, 1987, Mr. Bellini submitted a cleanup plan  
26 to BLM, proposing to begin work on February 15, 1987. No cleanup  
27 work was done and the mill has not been operated since that date.

28       8. The EPA has designated an On-Scene Coordinator ("OSC")

1 for the facility, pursuant to 40 C.F.R. Part 300.

2 B. Endangerment.

3 9. Population at risk. The facility is readily accessible  
4 along a paved road which serves as an alternate route to a popular  
5 outdoor recreation area, the Ruby Lake National Wildlife Refuge.  
6 Evidence of vandalism at the facility indicates that the warehouse  
7 and mill act as an attractive nuisance to hunters and other  
8 recreationists who visit this area. Individuals visiting the  
9 abandoned mill could become exposed to the harmful chemicals  
10 or their reactive by-products should the barrels open and spill.

11 9. Substances of concern. Cyanide, sodium cyanide, nitric  
12 acid, hydrochloric acid and sodium sulfide are hazardous chemicals.

13 a. Sodium sulfide is unstable and can explode on rapid  
14 heating or percussion. It reacts violently when exposed to water.  
15 When heated, sodium sulfide will decompose and emit toxic  
16 fumes of sulfur and sodium oxides.

17 b. Hydrochloric acid is a strong corrosive which can burn  
18 the skin, eyes and mucous membranes upon direct dermal contact.  
19 It is also moderately irritating to the respiratory tract when  
20 inhaled. Hydrochloric acid produces toxic and corrosive fumes  
21 when exposed to water.

22 c. Nitric acid is a corrosive material which can burn the  
23 skin, eyes and respiratory tract upon direct contact or inhalation  
24 of vapors. It can cause acute pulmonary edema or chronic pulmonary  
25 diseases from inhalation. When heated or reacted with water, it  
26 produces toxic and corrosive fumes.

27 d. Sodium cyanide is a toxic chemical. Its manner of storage

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1 at the facility poses special risks because it can potentially  
2 come into contact with incompatible materials. Sodium cyanide  
3 and strong acids are incompatible materials. Should sodium  
4 cyanide come into contact with a concentrated acid, like the  
5 nitric or hydrochloric acid stored with it here, a release of  
6 hydrogen cyanide gas would occur. Release of hydrogen cyanide  
7 gas may be life-threatening. Mixtures of sodium cyanide and  
8 strong oxidizers, such as nitric and hydrochloric acids, present  
9 both fire and explosion hazards.

10 10. Abandonment of the cyanide in the ponds constitutes  
11 a release of cyanide into the environment. The dilapidated  
12 condition of the pregnant pond liners poses a threat of further  
13 releases of the cyanide solution into the environment.

14 11. There is a potential for humans to come in contact with  
15 the cyanide in the ponds and the hazardous chemicals stored in  
16 the barrels. These chemicals and their products of reaction  
17 are toxic through the dermal, oral and inhalation routes of  
18 exposure.

19 III. CONCLUSIONS OF LAW

20 1. Giovanni Bellini, American International Resources, Inc.,  
21 Einar Erickson, Leo Knudson, John Affleck, Gary N. Sheffield,  
22 Paul B. Sheffield, Mark B. Morgan, Michael P. Naeve, Dennis Bullock,  
23 Blaine Hancey, Patrick O'Keefe, James Scilley, James Sullivan,  
24 Lynn H. Erickson, Chester W. Eskey, Gustav E. Rosenheim, Harold  
25 E. Reiff Trust, Alberta Reiff, J. F. Chadband, Warren Longhurst,  
26 Al Stratton, Franklin D. Transtrum, Clair S. Hawkins, Grover  
27 Hawkins, Freeman Institute, and G & S Construction Co., are  
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1 "persons" as defined in Section 101(21) of CERCLA, 42 U.S.C.  
2 §9601(21).

3 2. The Silverado Cyanide Leach Facility is a "facility" as  
4 defined in Section 101(9) of CERCLA, 42 U.S.C. §9601(9).

5 3. Respondents Giovanni Bellini and American International  
6 Resources, Inc. operated the facility at the time the barrels  
7 containing toxic chemicals and the cyanide solution in  
8 the pregnant ponds were disposed of at the property, and are  
9 responsible parties as provided in Section 107(a)(2) of CERCLA,  
10 42 U.S.C. §9607(a)(2).

11 4. Respondents Einar Erickson, Leo Knudson, John Affleck,  
12 Gary N. Sheffield, Paul B. Sheffield, Mark B. Morgan, Michael P.  
13 Naeve, Dennis Bullock, Blaine Hancey, Patrick O'Keefe, James  
14 Scilley, James Sullivan, Lynn H. Erickson, Chester W. Eskey,  
15 Gustav E. Rosenheim, Harold E. Reiff Trust, Alberta Reiff, J. F.  
16 Chadband, Warren Longhurst, Al Stratton, Franklin D. Transtrum,  
17 Clair S. Hawkins, Grover Hawkins, and the Freeman Institute  
18 are owners of the mill claim and are responsible parties as  
19 provided in Section 107(a)(1) of CERCLA, 42 U.S.C. §9607(a)(1).

20 5. Respondents Giovanni Bellini and G & S Construction Co.  
21 transported the hazardous substances to the facility for disposal  
22 and are responsible parties as provided in Section 107(a)(4) of  
23 CERCLA, 42 U.S.C. §9607(a)(4).

24 6. Cyanide, sodium cyanide, nitric acid, and hydrochloric  
25 acid are "hazardous substances" as defined in Section 101(14) of  
26 CERCLA, 42 U.S.C. §9601(14).

27 7. There has been an actual "release", as defined in Section

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1 101(22) of CERCLA, 42 U.S.C. §9601(22), of cyanide into the  
2 environment.

3 8. There is a threat of "release", as defined in Section  
4 101(22) of CERCLA, 42 U.S.C. §9601(22) of sodium cyanide, nitric  
5 acid and hydrochloric acid into the environment.

#### 6 IV. DETERMINATIONS

7 Based upon the foregoing Findings of Fact and Conclusions  
8 of Law, the Director, Toxics and Waste Management Division, EPA  
9 Region 9 has made the following determinations:

10 1. The release and threatened release of hazardous substances  
11 and pollutants or contaminants from the facility may present an  
12 imminent and substantial endangerment to public health and welfare  
13 and the environment.

14 2. In order to prevent or mitigate immediate and signifi-  
15 cant risk of harm to human health and the environment, it is  
16 necessary that removal action be taken immediately to contain and  
17 prevent the release and potential release of hazardous substances,  
18 pollutants or contaminants from the facility.

19 3. The response measures ordered herein are consistent  
20 with the National Contingency Plan, 40 C.F.R. Part 300.

21 4. Respondents are jointly and severally liable for  
22 conducting the actions ordered herein, which are necessary to  
23 protect human health and the environment.

#### 24 V. ORDER

25 Based upon the foregoing Findings of Fact, Conclusions of  
26 Law and Determinations, Respondents are hereby ordered and  
27 directed to implement the following measures:

28 1. Within seven (7) days of the effective date of this



1 Order, Respondents shall install a fence around the perimeter of  
2 the property to restrict access to the warehouse and pregnant  
3 solution ponds, and shall post the property with signs reading,  
4 "Danger: Hazardous Materials - Unauthorized Persons Keep Out."  
5 The fencing shall be a cyclone-type fence at least eight feet  
6 high with barbed wire at the top. A gate shall be installed  
7 and locked and a key to the lock provided to the EPA.

8       2. Within fourteen (14) days of the effective date of this  
9 Order, Respondents shall submit to EPA a written proposal with a  
10 schedule for the following activities:

- 11           a. Onsite segregation of incompatible chemicals
- 12               by a certified environmental contractor;
- 13           b. Removal of all drums containing hazardous
- 14               substances from the facility; and
- 15           c. Removal of pregnant solution from pregnant
- 16               solution ponds.

17       3. Within seven (7) days of EPA approval of the proposal,  
18 Respondents shall begin implementation of the proposal. Respond-  
19 ents shall fully implement the proposal as approved by EPA within  
20 the time period set forth in the schedule.

21       4. Within thirty (30) days of the effective date of this  
22 Order, Respondents shall submit to EPA a written proposal with a  
23 schedule for soil and groundwater sampling beneath the pregnant  
24 solution ponds and heap leach operation.

25       5. Within seven (7) days of EPA approval of the proposal,  
26 Respondents shall begin implementation of the proposal. Respondents  
27 shall fully implement the proposal as approved by EPA within the

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1 time period set forth in the schedule.

2 6. Except for fencing and posting the site, no other  
3 activities may be undertaken pursuant to this Order without the  
4 approval of EPA.

5 Respondents are further ordered as follows:

6 VI. COMPLIANCE WITH APPLICABLE LAWS

7 In carrying out the terms of this Order, Respondents shall  
8 comply with all federal, state and local laws and regulations.  
9 All hazardous substances/wastes removed from the facility must be  
10 handled in accordance with Subtitle C and Subtitle D of the  
11 Resource Conservation and Recovery Act, 42 U.S.C. §6921 et seq,  
12 and the Nevada Revised Statutes Sections 400 et seq, and the  
13 regulations promulgated thereunder.

14 VII. SUBMITTALS

15 All submittals and notifications to EPA pursuant to this  
16 Order shall be made to:

17 Director, Toxics and Waste Management Division  
18 Environmental Protection Agency, Region 9  
19 215 Fremont Street  
San Francisco, California 94105

20 Copies of all submittals and notifications shall be sent  
21 simultaneously to:

22 Verne Rosse  
23 Nevada Division of Environmental Protection  
24 201 South Fall Street  
Carson City, Nevada 89710

25 All approvals and decisions of EPA made regarding such  
26 submittals and notifications shall be communicated to Respondents  
27 by the Director, Toxics and Waste Management Division, U.S.

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1 Environmental Protection Agency, Region 9 or his designee. EPA  
2 will consult with Nevada DEP to ensure that the plans submitted  
3 pursuant to this Order are consistent with state and local require-  
4 ments. No informal advice, guidance, suggestions or comments by  
5 EPA regarding reports, plans, specifications, schedules or any  
6 other writing shall be construed to relieve the Respondents of  
7 their obligation to obtain such formal approvals as may be  
8 required herein.

#### 9 VIII. ACCESS

10 Respondents shall grant access to employees and authorized  
11 representatives of EPA and the Nevada Division of Environmental  
12 Protection to the facility. Nothing in this paragraph is intended  
13 to limit in any way the right of entry or inspection that EPA or  
14 any other agency may otherwise have by operation of law.

#### 15 IX. ON-SCENE COORDINATOR

16 EPA has appointed an On-Scene Coordinator (OSC) who has  
17 the authority vested in the "On-Scene Coordinator" by 40 C.F.R.  
18 Part 300, et seq., published at 42 Fed. Reg. 31180 (July 16,  
19 1982). That authority includes, without limitation, the right  
20 to: be on-site at all reasonable times; observe, take photographs  
21 and make other reports on the progress of the work as the OSC  
22 deems appropriate; and review records, files and documents  
23 relevant to the Order.

#### 24 X. ENDANGERMENT DURING IMPLEMENTATION

25 In the event that the Director, Toxics and Waste Management  
26 Division, EPA, Region 9 determines that any activities (whether  
27 pursued in implementation of or in noncompliance with this Order)

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1 or circumstances are endangering the health and welfare of people  
2 on the site or in the surrounding area or to the environment, the  
3 Director may order the Respondents to stop further implementation  
4 of this Order for such period of time as needed to abate the  
5 endangerment.

#### 6 XI. GOVERNMENT LIABILITIES

7 The United States Government shall not be liable for any  
8 injuries or damages to persons or property resulting from the  
9 acts or omissions of any Respondent, its employees, agents or  
10 contractors in carrying out activities pursuant to this Order,  
11 nor shall the Federal Government be held as a party to any  
12 contract entered into by any Respondent, or its agents in carry-  
13 ing out activities pursuant to this Order.

#### 14 XII. PENALTIES FOR NONCOMPLIANCE

15 A willful violation or failure or refusal to comply with  
16 this Order, or any portion thereof, may subject you to a civil  
17 penalty of not more than \$25,000 per each day in which a violation  
18 occurs or such failure to comply continues, pursuant to the  
19 provisions of Section 106(b)(1) of CERCLA, 42 U.S.C. §9606(b)(1).  
20 Failure to comply with this Order, without sufficient cause, may  
21 also subject you to punitive damages in an amount up to three  
22 times the total of all costs incurred by the Government as a  
23 result of your failure to take proper action, pursuant to the  
24 provisions of Section 107(c)(3) of CERCLA, 42 U.S.C. §9607(c)(3).

25 EPA may take over the removal action at any time if EPA  
26 determines that Respondents are not taking appropriate action  
27 to mitigate the site hazard. In the event EPA assumes responsi-  
28 bility for the removal action, Respondents shall be liable for

1 all costs incurred by EPA to mitigate the site hazard. EPA may  
2 order additional removal or remedial actions deemed necessary by  
3 EPA to protect the public health and welfare or the environment.

4 XIII. OPPORTUNITY TO CONFER

5 You may request a conference with the Director, Toxics and  
6 Waste Management Division, EPA Region 9 or his staff to discuss  
7 the provisions of this Order. At any conference held pursuant  
8 to your request, you may appear in person or by counsel or other  
9 representatives for the purpose of presenting any objections,  
10 defenses or contentions which you may have regarding this Order.  
11 If you desire such a conference, you must make such request  
12 orally within 24 hours of receipt of this Order, to be immediate-  
13 ly confirmed in a written request. Please make any such request  
14 to either of the contact persons listed below.

15 XIV. PARTIES BOUND

16 This Order shall apply to and be binding upon the Respon-  
17 dents, their officers, directors, agents, employees, contractors,  
18 successors and assigns.

19 XV. NOTICE OF INTENT TO COMPLY

20 Immediately upon receipt of this Order, Respondents shall  
21 orally inform EPA of its intent to comply with the terms of this  
22 Order. This shall be confirmed in writing within two (2) days  
23 of receipt of this Order. Failure to notify EPA of the  
24 Respondents' intent to comply will be construed by EPA as a  
25 refusal to comply.

26 XVI. EFFECTIVE DATE

27 Notwithstanding any conferences requested pursuant to the  
28 provisions of this Order, this Order is effective upon receipt,

1 and all times for performance shall be calculated from that date.

2 It is so ordered on this 17 day of December, 1987.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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By: Jeff Zelikson

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JEFF ZELIKSON

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DIRECTOR, TOXICS & WASTE MANAGEMENT DIVISION

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EPA, REGION 9

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